

Title (en)  
Steering control apparatus

Title (de)  
Lenksteuervorrichtung

Title (fr)  
Appareil de commande de direction

Publication  
**EP 2112051 B1 20110105 (EN)**

Application  
**EP 09158443 A 20090422**

Priority  
JP 2008112011 A 20080423

Abstract (en)  
[origin: EP2112051A1] In a steering control apparatus (40), emergency switching elements (51, 52) constituted by semiconductor switching elements are provided respectively in a V phase and a W phase power supply line (42V, 42W) of a motor driving circuit (43). When an abnormality occurs, MOSFETs through which no current is flowing or MOSFETs through which a current oriented to turn a parasitic diode (51D, 52D) on is flowing are sequentially turned off such that all of the MOSFETs serving as the emergency switching elements (51, 52) are turned off. Thus, rapid current blocking is eliminated, and hence there is no need to use expensive MOSFETs that can withstand a spike voltage as the emergency switching elements (51, 52). As a result, a reduction in cost can be achieved.

IPC 8 full level  
**B62D 5/04** (2006.01)

CPC (source: EP US)  
**B62D 5/0484** (2013.01 - EP US); **H02P 6/24** (2013.01 - US)

Cited by  
DE102010033440A1; DE102010035149A1; DE102010035149B4; WO2012031656A1; DE102013209527A1; EP2385623A3; DE102011055626A1; EP3157163A4; DE102013104937A1; DE102013209525A1; FR3042322A1; CN108141033A; DE102010033440B4; CN102852656A; DE102013222389A1; CN103108794A; JP2015033212A; CN105409112A; EP3029822A4; US10326265B2; US10259491B2; DE102011055626B4; US9882522B2; WO2017059939A1; WO2012016669A1; US9254864B2

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AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 2112051 A1 20091028; EP 2112051 B1 20110105**; AT E494203 T1 20110115; DE 602009000516 D1 20110217; JP 2009262648 A 20091112; JP 5627842 B2 20141119; US 2009267551 A1 20091029; US 2013320895 A1 20131205; US 8541967 B2 20130924; US 8907603 B2 20141209

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